SAF-RC-040 300 Area D&D Waste Characterization Sampling - Other Solid FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Mike Stankovich

L1-01

KW 8/1/07

COMMENTS:

SDG 07-A-4082

SAF-RC-040

Rad only

X Chem only

Rad & Chem

X Complete '

Partial

Sample Location/Waste Site: 337 Building





7/27/07 **Page** 1 of 5

SUBMITTED TO:

Joan Kessner Washington Closure Hanford 2620 Fermi Avenue, MSIN H4-21 Richland, WA 99354



REFERENCE DATA:

Client Sample No.:

J15BY8 through J15BY7

P.O. No.:

Not Available

Sample Location:

337

Sample Type:

Bulk

Method Reference:

EPA-600/R-93/116

DCL Set ID No.:

07-A-4082

DCL Sample ID No.:

07-23102 through 07-23116

Sample Receipt Date:

7/26/07

Analysis Date:

7/27/07

We certify that the following samples were prepared and analyzed by Polarized Light Microscopy for asbestos and other fibrous constituents using EPA-600/R-93/116. The samples were acceptable upon receipt except where noted. The samples were examined under a stereomicroscope in a laboratory fume hood for general composition and phase separation. If needed, portions of the sample were removed and ground with a mortar and pestle before being mounted on a glass microscope slide. Mountings of representative portions of the material are prepared in one or more appropriate refractive index liquids (1.550, 1.605, 1.680) and examined by Polarized Light Microscopy*. Estimates of concentration are made on an area basis. The results of the analysis apply only to the materials analyzed and are summarized on the attached bulk asbestos analysis data sheets. DataChem Laboratories will dispose of all bulk samples after 60 days unless other arrangements are made.

Shawn Smythe Analyst Anna Marie Ristich

Reviewer

*Floor tiles, decorative paints, joint compounds, and cement materials require additional treatment in order to evaluate the concentration of small asbestos fibers bound in the material. Some samples may contain fibers that are not visible by PLM and can only be detected by electron microscopy techniques. Floor tiles are analyzed as homogeneous materials if insufficient mastic is present or if phases have been cross contaminated.

DataChem Laboratories NVLAP Lab ID: 101917. Laboratory accreditation by the National Institute of Standards and Technology does not in any way constitute approval or endorsement by NVLAP, NIST, or any agency of the federal government..

CINCINNATI OFFICE 4388 GLENDALE-MILFORD ROAD CINCINNATI, OHIO 45242-3706 513 733-5336, FAX 513 733-5347 WEST COAST OFFICE 11 SANTA YORMA COURT NOVATO, CALIFORNIA 94945 800 280-8071, FAX 415 893-9469

Client: Washington Closure Hanford

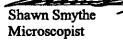
Location: 337 Set ID: 07-A-4082

Client Sample ID:	J15BY8	J15BY9	J15C00	J15C01	J15C02
DCL Sample ID:	07-23102	07-23103	07-23104	07-23105	07-23106
Macroscopic Examination					
Accepted/Rejected:	Accepted	Accepted	Accepted	Accepted	Accepted
Homogeneity:	Layered	Layered	Layered	Homog.	Layered
	Inseparable	Inseparable	Inseparable	_	Inseparable
Color:	Grey/Yellow	Grey/Yellow	Grey/Yellow	Grey	Grey/Tan
Texture:	Fbrs/Flex	Fbrs/Flex	Fbrs/Flex	Fibrous	Fbrs/Resns
Description:	Material	Material	Material	Material	Material
Analysis:	PLM	PLM	PLM	PLM	PLM
Asbestiform Minerals	4				
% Chrysotile:					
% Amosite:			•		
% Crocidolite:					
% Tremolite - Actinolite:					
% Anthophyllite:	•				
% Total Asbestos:	ND ND	ND	ND .	ND	ND
Other Materials			-	· ·	
% Cellulose:		•			>10≤20
% Fiberglass:	>50≤60	>50 ≤ 60	>50≤60		>3≤5
% Other Fibers:				>80≤90	>40 ≤ 50
% Resin/Binder:	>5≤10	>5≤10	>5≤10		>5≤10
% Non Fibrous:	>20≤30	>20≤30	>20≤30	>5≤10	>10≤20

ND = None Detected Trace = <1%

Special Prep Procedures: None.

*Notes: P. O. #: Not Available.



All values are in area percent by visual estimate. The Federal Register Vol. 55 No. 224 Tuesday Nov. 20 1990 Rules and Regulations states "... If the asbestos content is estimated to be less than 10% by a method other than point counting,... (the analysis) be repeated using the point counting technique by PLM." Any of the above samples can be reanalyzed by point counting at the client's request.

Wherever possible, separate phases are analyzed and reported individually.

Client: Washington Closure Hanford

Location: 337 Set ID: 07-A-4082

Client Sample ID:	J15BX8	J15BX9	J15BY0	J15BY1	J15BY1
DCL Sample ID:	07-23107	Q7-23108	07-23109	07-23110A	07-23110B
Macroscopic Examination					,
Accepted/Rejected:	Accepted	Accepted	Accepted	Accepted	Accepted
Homogeneity:				Layered	Layered
Color:				Grey	Tan
Texture:				Compact	Resinous
Description:	•			Tile	Mastic
Analysis:				PLM	PLM
Asbestiform Minerals					
% Chrysotile:			•	>1≤3	
% Amosite:	•	•			
% Crocidolite:					
% Tremolite - Actinolite:					
% Anthophyllite:					
% Total Asbestos:				>1≤3	ND
Other Materials					
% Cellulose:				,	
% Fiberglass:					<i>γ</i> !
% Other Fibers:					
% Resin/Binder:			4	>10≤20	>70≤80
% Non Fibrous:	·····			>70 ≤ 80	>10≤20

ND = None Detected Trace = <1%

Special Prep Procedures: Sample numbers J15BX8, J15BX9 and J15BY0 were prepared by gravimetric reduction.

*Notes: P. O. #: Not Available.



All values are in area percent by visual estimate. The Federal Register Vol. 55 No. 224 Tuesday Nov. 20 1990 Rules and Regulations states "... If the asbestos content is estimated to be less than 10% by a method other than point counting,... (the analysis) be repeated using the point counting technique by PLM." Any of the above samples can be reanalyzed by point counting at the client's request. Wherever possible, separate phases are analyzed and reported individually.

Client: Washington Closure Hanford

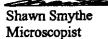
Location: 337 Set ID: 07-A-4082

Client Sample ID:	J15BY2	J15BY3	J15BY4	J15BY5	J15BY6
DCL Sample ID:	07-23111	07-23112	07-23113	07-23114	07-23115
Macroscopic Examination	· · · · · · · · · · · · · · · · · · ·				
Accepted/Rejected:	Accepted	Accepted	Accepted	Accepted	Accepted
Homogeneity:	Homog.	Homog.	Homog.	Layered	Layered
		•		Inseparable	Inseparable
Color:	Grey	Grey	Grey	Grey	Grey/Yellow
Texture:	Crmby/Fbrs	Fibrous	Fibrous	Fbrs/Flex	Fbrs/Flex
Description:	Material (Insulation	Material	Material	Material
Analysis:	PLM	PLM	PLM	PLM	PLM
Asbestiform Minerals					
% Chrysotile:	,				
% Amosite:			•		
% Crocidolite:					
% Tremolite - Actinolite:					
% Anthophyllite:					
% Total Asbestos:	ND ·	ND	ND	ND	ND
Other Materials			•		
% Cellulose:					
% Fiberglass:		>90≤100	>90≤100	>50≤60	>50≤60
% Other Fibers:	>10≤20				
% Resin/Binder:				>5≤10	>5≤10
% Non Fibrous:	>70≤80		>1≤3	>20≤30	>20≤30

ND = None Detected Trace = <1%

Special Prep Procedures: None.

*Notes: P. O. #: Not Available.



All values are in area percent by visual estimate. The Federal Register Vol. 55 No. 224 Tuesday Nov. 20 1990 Rules and Regulations states "... If the asbestos content is estimated to be less than 10% by a method other than point counting,... (the analysis) be repeated using the point counting technique by PLM." Any of the above samples can be reanalyzed by point counting at the client's request. Wherever possible, separate phases are analyzed and reported individually.

Client: Washington Closure Hanford

Location: 337 Set ID: 07-A-4082

Client Sample ID:	J15BY7	
DCL Sample ID:	07-23116	· •
Macroscopic Examination		
Accepted/Rejected:	Accepted	
Homogeneity:	Layered	
	Inseparable	
Color:	Grey	
Texture:	Fbrs/Flex	•
Description:	Material	1
Analysis:	PLM	
Asbestiform Minerals		
% Chrysotile:		· ·
% Amosite:		
% Crocidolite:		
% Tremolite - Actinolite:		
% Anthophyllite:	•	
% Total Asbestos:	ND	
Other Materials		
% Cellulose:		μ 1
% Fiberglass:	>50 ≤ 60	
% Other Fibers:		
% Resin/Binder:	>5≤10	·
% Non Fibrous:	>20≤30	

ND = None Detected Trace = <1%

Special Prep Procedures: None.

*Notes: P. O. #: Not Available.

Shawn Smythe Microscopist

All values are in area percent by visual estimate. The Federal Register Vol. 55 No. 224 Tuesday Nov. 20 1990 Rules and Regulations states "... If the asbestos content is estimated to be less than 10% by a method other than point counting,... (the analysis) be repeated using the point counting technique by PLM." Any of the above samples can be reanalyzed by point counting at the client's request.

Wherever possible, separate phases are analyzed and reported individually.



Page 1 of 2 7/30/07

SUBMITTED TO:

Joan Kessner Washington Closure Hanford 2620 Fermi Avenue, MSIN H4-21 Richland, WA 99354

REFERENCE DATA:

Client Sample No.:

J15BX8 through J15BY0

P.O. No.:

Not Available

Sample Location:

337

Sample Type:

Bulk

Method Reference:

EPA/600/R-93/116, ELAP 198.1 (modified),

PLM Analysis with Gravimetric Reduction

DCL Set ID No.:

07-A-4082

DCL Sample ID No.:

07-23107 through 07-23109

Sample Receipt Date:

7/26/07

Preparation Date:

7/27/07 through 7/30/07

Analysis Date:

7/30/07

We certify that the samples indicated on the following data sheet(s) were prepared by gravimetric reduction and analyzed by Polarized Light Microscopy (PLM) for asbestos using a modification of the method, EPA/600/R-93/116, ELAP 198.1, Chatfield Method, for determining the amount and type of asbestos present in bulk building materials. The samples were acceptable upon receipt except where noted.

The samples were examined under a stereomicroscope for general composition and phase separation. Coarse, non-asbestos materials that cannot be pulverized, such as pebbles or metal foils, were separated from the portion analyzed. Other non-asbestos material was removed by ashing in a muffle furnace and/or dissolution in hydrochloric acid. Sample weights were tracked through each step in the reduction. Mountings of representative portions of the final residue were prepared in one or more refractive index liquids (1.550, 1.605, 1.680) and examined by Polarized Light Microscopy*. Estimates of concentration are made on an area basis. The results of the analysis apply only to the materials analyzed and are summarized on the attached PLM Asbestos Analysis Data Sheets.

Shawn Smythe Analyst Anna Marie Ristich

Reviewer

* Some samples may contain fibers that are not visible by PLM and can only be discovered by electron microscopy techniques. Floor tiles are analyzed as homogeneous materials if insufficient mastic is present or if phases have been cross contaminated.

DataChem Laboratories NVLAP Lab ID: 101917. Laboratory accreditation by the National Institute of Standards and Technology does not in any way constitute approval or endorsement by NVLAP, NIST, or any agency of the federal government.

Samples will be disposed of after 60 days unless instructed otherwise.

CINCINNATI OFFICE 4388 GLENDALE-MILFORD ROAD CINCINNATI, OHIO 45242-3708 513 733-5338, FAX 513 733-5347 WEST COAST OFFICE 11 SANTA YORMA COURT NOVATO, CALIFORNIA 94945 800 280-8071, FAX 415 893-9469

DataChem Laboratories Analytical Report PLM Bulk Asbestos Analysis using Gravimetric Reduction

Client: Washington Closure Hanford Location: 337

Set ID: 07-A-4082

SAMPLE IDENTIFICATIO. Client ID:	J15BX8	J15BX9	J15BY0		
DCL ID:	07-23107	07-23108	07-23109		
SAMPLE DESCRIPTION					
Homogeneity:	Layered Inseparable	Layered Inseparable	Layered Inseparable		
Color:	Black/Grey	Black/Grey	Black/Grey		
Texture:	Resinous/Granular	Resinous/Granular	Resinous/Granular		
Description:	Roofing	Roofing	Roofing		
SAMPLE PREP					
Starting Weight (g):	1.3466	1.7562	0.9119		
Residue Weight (g):	0.4637	0.8460	0.7321		
Weight Percent Residue:	34.43	48.17	80.28		
PERCENT ASBESTOS DET	ECTED IN RESIDUE				
Chrysotile:	ND	ND	ND		
Grunerite:	ND	ND	ND , I		
Crocidolite:	ND	ND	ND		
Actinolite-Tremolite:	ND	ND	ND		
Anthophyllite:	ND	ND .	ND		
TOTAL IN RESIDUE	ND	ND	ND		
ASBESTOS PERCENT IN	SAMPI F				
ASSESTOS PERCENT IN	ND	ND	ND		
	ND = None Detected	TD 4 CE - < 10/	ND ,		

ND = None Detected

TRACE = <1%

*Notes: P. O. #: Not Available.

Shawn Smythe

Analyst

Anna Marie Ristich

Reviewer

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSI					SIS	REQUEST			RC-040-319		Page 3 of 3		
Collector Mike-Stankovich (A (Compa Tim		Telephone No. 627-8639				Project Coordinator KESSNER, JH		inator	Price Code	9K		naround	
Project Designation 300 Area D&D Waste Characterization Sampling - Other Soli 337 Building								SAI RC-	No. 040				7 D	ays
Ice Chest No. Med. Fed Ex Box	Field L	ogbook No. 518- (Lo3	٠٤	COA See Below				Method of Shipment Federal Express			_			·····
Shipped To DataChem Laboratories - Cincinnati			7030	12	,	,			of Lading	/Air Bill	No.			
POSSIBLE SAMPLE HAZARDS/REMARKS			T	T			[_		Γ		-T	Γ	l
Asbestos 07- A-4082		Preservation	None	-						<u> </u>				
Special Handling and/or Storage		Type of Container	G/P							<u> </u>				
N/A	1	No. of Container(s)	1	1										
12/4		Volume	5g			-								
SAMPLE ANALYSIS			Asbestos- BULK-EPA					-				-	-	
Sample No. Matrix * Sa	mple Date	Sample Time		() (4 · · · · · · · · · · · · · · · · · ·	m. a		8. S		這一提達 斯					
J15BY8 23 02 OTHER SOLID 7-2	4-7	1430	~	5.41 (18°±2°3.47	1501101101		1474 H 148	人名特尔特	39592 98 16		#36# NS6 4#	的權利 。 公共 法	1995年1998日	1664
J15BY9 23103 OTHER SOLID 7-2	14-07	1431	K	1			<u> </u>					- 	-	
110000	4-07	1432	X	1						†			 	
	24-07	1433	X				-			 			1	
J15C02 23/06 OTHER SOLID 7-1	24-07	1434	X							1			 	
CHAIN OF POSSESSION	Sign/Print	Names			SPEC	IAL INSTR	UCTI	ONS	<u></u>	<u>. 1 </u>			<u> </u>	Matrix *
Relinquished By/Removed From Date/Time Reciprocial A Case Street 7-1407/1440	eived By/Stor	3B 7-24	ate/Time	ŸΨ	Labora Sampi	tory Analysis ing COA - R3	. Data M 37B0 10	anage 00	ment, and Sh	ipping COA	- RD4MXX2	F00		S=Soti SE=Sotiment
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	eived By/Sor	ed In D	ate/Time/							-				SO=Solid S1=Sludge W = Water
Relinquished By/Redoved From WCH Date/Time Reco	eived By/Stor		ate/Time	· ·									-	O=Oil A=Air DS=Drum Solids
Relinquished By/Removed From Date/Time R	A	diele D	ate/Time 7/26/0	וודר	olΩ									DL=Drum Liquids T=Tissec WI=Wips L=Liquid
Relinquished By/Removed From Date/Time Reco	eived By/Stor	ed In D	ate/Time		Samp	er unavailates from 372	ne to re 8 Ref#	33	ish oles for					V=Vegetation X=Other
Relinquished By/Removed From Date/Time Reco	eived By/Stor	ed in D	ate/Time		3728 shipp	es from 372 Custodian ing on	35	/ <u>0</u>	Ž;					
SECTION Received by POPUL			ī	itle						· · · · ·	7/20	ו דמאס	Date/Time	L
FINAL SAMPLE Disposal Method DISPOSITION						Dispo	sed By	_		<u>.</u>	_ (Date/Time	

331B Roofing mete, blk tar Ygray rock JUE BK9 Roof utl. , blatan of fragroch 8x4 BYA FT, 9×9, Cream, Control room on BYI Di press vessel lusulation, By2 sabelled ACM, white, hard hi press vestel 4th line, white Carlo Coveryy, Cloth, G'Box wires 4: press/veller white convess over Pilly filenglas, 1"-2" dramater BYS Mot surface " Ove Assured explicat composed - high voltreg - RIRE DOORS

Washington Closur	e Hanford	CE	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						T	RC-040-319 Page 1 of 3				
Collector Mike Stankovich	لعو	Compa	Company Contact Telephone No. Tim Lee 627-8639				Project Coordinator KESSNER, JH			Price Code	9K	Data Tur	naround	
Project Designation 300 Area D&D Waste Charac		ng Location Building						SAF No. RC-040				7 D	ays	
Ice Chest No. Med. Fee	-Ei-	ogbook No. 1518- EL-(683		COA See B	clow			Method of Shi Federal Exp						
Shipped To DataChem Laboratories - Cin	ocinnati	Offsite	Pronerty No. Ao	7030	2	-			Bill of Lading See OSPC	/Air Bill	No.			
POSSIBLE SAMPLE HAZA	RDS/REMARKS									T		T	T	
Asbestos			Preservation	None										
Special Handling and/or S	itorage		Type of Container	G/P								1		_
1/4	g		No. of Container(s)	1				_						
NJA		•	Volume	5g	-								1	
			······································	Asbestos- BULK-EPA			<u> </u>		<u> </u>	- 		 	-	
	SAMPLE ANALYS	SIS								ŀ				
					į					-				
Sample No.	Matrix *	Sample Date	Sample Time	100 12 15 1				en s						
J15BX8 23107	OTHER SOLID	7-24-6	7 1400	メ							-		E 1921 - 1921 - 1921 - 1921 - 1921 - 1921 - 1921 - 1921 - 1921 - 1921 - 1921 - 1921 - 1921 - 1921 - 1921 - 192	PR 0.00 Z.F., 2 B 1 C X
J15BX9 23108	OTHER SOLID	1-24-	7 1405	×				-						7
J15BY0 23109	OTHER SOLID	j-24.e	7 1410	1 ×										
J15BY1 23110	OTHER SOLID	7-24-	7 1415	X										 -
J15BY2 23111	OTHER SOLID	7-24-0	7 1420	X									-	· · · · · · · · · · · · · · · · · · ·
CHAIN OF POSSESSIO	N	Sign/Prin				SPECL	AL INSTR	UCTIO	ONS			<u> </u>		Matrix *
Relinquished By/Removed From	Date/Time 7-24-47/144	Received By/Stor	3B 7-24	ate/Time		Laborat	ory Analysis, ig COA - R3:	Data M	anagement, and SI	ipping CO	A - RD4MXX2F0	0		S-Soil
Relinquished By/Removed From	Date/Time	Received By/Stor		ate/Time										SE=Sectiment SO=Solid SI=Startge
3728# 38 7-25		-1R 50	molan 7-25-0		70									W = Water O-Oil
Relinquished Hy/Removed From		Received By/Stor		ate/Time										A=Air D\$=Drum Solids
Relinquished By/Removed From	Date/Time	7779		12610	7 101	10							*	OL-Oran Liquids T-Tissue Wi-Wipe L-Liquid
Relinquished By/Removed From	Date/Time	Received By/Stor		ate/Time		sample	er unavailat s from 372	8 Ref#	<i>38</i> .					V=Vegetation X=Other
Relinquished By/Removed From	Date/Time	Received By/Stor	ed In D	ate/Time		3728 C	Custodian r	emoved	samples for					
LABORATORY Received SECTION	spec	~	···	Ti	tle	<u> </u>			· · · · · · · ·		-	1/26/6	Date/Time	[/ <u></u>
FINAL SAMPLE Disposal M DISPOSITION	lethod						Dispo	sed By	 				Date/Time	<u>~</u>
			· 											

Washington Closure Hanford CHAIN O			CHAIN OF CUSTODY/SAMPLE ANALYSIS RE					PEOUEST		RO	C-040-319	Page 2	of 3
Collector -Mike Stankovich	A Cec Company Contact Tim Lee			Telephone No. 627-8639			7	Project Coordinator KESSNER, JH		Price Code		<u> </u>	rnaround
Project Designation 300 Area D&D Waste Characterization Sampling - Other Soli 337 Building								SAF No. RC-040		_		71	Days
Ice Chest No. Med. Fed Ex Box Field Logbook No. EL-1518- EL-160					COA See Below	- " ' ' '	1	Method of Shipment Federal Express					<u>.</u> .
Shipped To DataChem Laboratories - Cincinnati Offsite Property No.					2			Bill of Lading See OSPC		No.			
POSSIBLE SAMPLE HAZA	RDS/REMARKS		T	T	<u> </u>		T	1	Τ	<u> </u>	T	l	·
Asbestos			Preservation	None									
Special Handling and/or S	torage		Type of Container	G/P									
. 1/10			No. of Container(s)	1									
N/A			Volume	5g								 -	ļ
				Asbestos- BULK-EPA			 	 	├	-			
·	SAMPLE ANALY	rsis								ļ			
Sample No.	Matrix *	Sample Date	Sample Time		ar War Board	基本公司 11.68 英语:	i e vine si		Par Side		4 Q. 4		1
115BY3 23112	OTHER SOLID	7-24-07	1425	X			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A CONTRACTOR	A Programme	3.44 A.	de de sais estados de la compansión de l	(4. · \$ · *)	1 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
15BY4 23113	OTHER SOLID	7-24-0	1426	X					 		1	_	+
15BY5 23/14	OTHER SOLID	7-24-0	7 1427										
115BY6 23 16	OTHER SOLID	7-24-0		~									
115BY7 23116	OTHER SOLID	7-24-0		Xo			-				 		
CHAIN OF POSSESSIO	A Date/Time,	Sign/Pri			SPEC	IAL INST	RUCTION	NS		·			Matrix
Lalinquished By/Removed From	27-24-01/14	Received By/St イ		ate/Time 4-07/14	40 Samp	ing COA - R3	, Data Man 37B0 1000	agement, and Shi	pping COA	A - RD4MXX2F0	O -		S=Soil SE=Sedimen
elinquished By/Removed From 3728 # 38 7-25-6	Date/Time / ク ア / よびる	Received By/S	ored in Di	ate/Time 1200									SO=Solid Si=Shulgo W = Water
alinguished By Removal From	25-67 1500	Received By/Su	<i>C</i>	ate/Time									O=Oil A=Air DS=Drum S
elinquished By/Removed From	Date/Time	Receive Of	Tell D	7/26/0	TUNO			2.5					DL=Drum L T=Time WI=Wipe
elinquished By/Removed From	Date/Time	Received By/St		ate/Time	camp	ier unavailat les from 372	8 Ref 🐛 🧷	5 .					L=Liquid V=Vegotatio X=Other
elinquished By/Removed From	Date/Time	Received By/Str	ored in Di	atc/Time	3728	Custodian ring on	emoved s	amples for			-		
	<u> </u>			Titk									L
LABORATORY Received By SECTION	TRUI.	ノノ			•					7/20		ate/Time	